

Application No. 10/602,998
Amendment dated August 12, 2005
Reply to Office Action of April 18, 2005

Amendments to the Claims:

1. (Currently Amended) A solid support for performing a plurality of polynucleotide amplification reactions wherein a releasable primer for each amplification reaction is immobilized ~~on an area of the~~ a surface of said solid support.
2. (Currently Amended) A system for amplifying a plurality of target nucleic acids, comprising:
 - (a) a first solid support wherein
 - (1) the surface of said first solid support comprises a plurality of derivatized areas;
 - (2) a releasable primer for each target nucleic acid or a releasable sequence complementary to said primer is immobilized on a derivatized area of the first solid support; and
 - (b) a second solid support wherein said second solid support comprises a plurality of wells and each well corresponds to a primer for each target nucleic acid.
3. (Original) A system for amplifying a plurality of target nucleic acids, comprising:
 - (a) a first solid support wherein
 - (1) the surface of said first solid support comprises a plurality of derivatized areas;
 - (2) a forward primer for each target nucleic acid or a sequence complementary to said forward primer is immobilized on a derivatized area of the first solid support
 - (3) a reverse primer for each region of said target nucleic acid or a sequence complementary to said reverse primer is immobilized on another derivatized area of the first solid support;
 - (b) a second solid support wherein said second solid support comprises a plurality of wells and each well corresponds to the forward and reverse primers for each target nucleic acid.
4. (Original) The system according to any one of the claims 2-3, wherein said plurality of target nucleic acids are a plurality of subsequences of a polynucleotide.

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5. (Original) The system of any one of claims 2-3, wherein said first or second solid support is glass.

6. (Original) The system according to any one of claims 2-3 wherein said immobilization is covalent.

7. (Original) The system according to any one of claims 2-3 wherein said immobilization is non-covalent.

8. (Currently Amended) The system according to ~~any one of~~ claims 2-3 wherein said primer is covalently linked to a cleavable moiety.

9. (Original) The system according to claim 8 wherein said cleavable moiety is cleavable by photolysis.

10. (Original) The system according to any one of the claims 2-3 wherein the surface of said first solid support comprises a plurality of hydrophilic areas.

11. (Original) The system according to any one of the claims 2-3 wherein the density of the derivatized areas on said first solid support is between about 10 to 10,000 per cm^2 .

12. (Original) The system according to any one of the claims 2-3 wherein the size of said derivatized area on said first solid support is between about 10^{-3} to 5 mm^2 .

13. (Original) The system according to any one of the claims 2-3 wherein the number of derivatized areas on said first solid support is between about 10 to 500,000.

14. (Cancelled)

15. (Original) The solid support of claim 1 wherein said releasable primer is releasable by photolysis.